ABSTRACT OF THE DISCLOSURE

For the formation of a first aluminum interconnect line (3) serving as a lower electrode of a MIM capacitor element, an antireflection film (4) having a two-layer structure of a TiN layer (41) and a SiON layer (42) is used. The SiON layer (42) of the antireflection film (4) is utilized as-is as a dielectric layer of the MIM capacitor element. An upper electrode (81) and a contact plug (82) are formed by the same process. Since the upper surfaces of the upper electrode (81) and the contact plug (82) are at the same level, an electrical contact can be easily provided between a second aluminum interconnect line (10) and each of the upper electrode (81) and the lower electrode (first aluminum interconnect line (3)) of the MIM capacitor element. Accordingly, the MIM capacitor element and contacts to the upper and lower electrodes of the MIM capacitor element can be formed through simple processes.